Lung Cancer Quality Performance Indicator Specifications

LCQI08 Radiation Treatment

2021

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# Introduction

This information is provided to make it easier for analysts to replicate our calculations. For each measure we have provided supporting information, a table and a flow diagram.

This document provides specifications for the following measure.

|  |  |  |
| --- | --- | --- |
| **Measure** | **Measure abbreviation** | **Measure type** |
| i) Proportion of people with lung cancer receiving radiation treatment, by intent and type of lung cancer (NSCLC/SCLC) | Radiation | Quality improvement |
| ii) Proportion of people with primary lung cancer receiving stereotactic ablative radiation therapy (SABR), intent and type of lung cancer (NSCLC/SCLC) | SABR | Quality improvement |
| iii) Proportion of people with lung cancer receiving concurrent chemoradiation, by intent and type of lung cancer (NSCLC/SCLC) | Chemoradiation | Quality improvement |

# Sources of data for indicator

* New Zealand Cancer Registry (NZCR) – a population-based register of all primary malignant diseases diagnosed in New Zealand, excluding squamous and basal cell skin cancers
* Radiation Oncology Collection (ROC) – a collection of radiation oncology treatment data, including both public and private providers.
* Pharmaceutical Collection (PHARMS) – a data warehouse that supports the management of pharmaceutical subsidies, and contains claim and payment information from pharmacists for subsidised dispensings
* National Non-Admitted Patients Collection (NNPAC) – includes event-based purchase units that relate to medical and surgical outpatient events and emergency department events

More information on these data sources can be found on the Ministry of Health’s website: [www.health.govt.nz](http://www.health.govt.nz).

# LCQI08 Radiation treatment

i) Proportion of people with lung cancer receiving radiation treatment, by, intent and type of lung cancer (NSCLC/SCLC).

ii) Proportion of people with primary lung cancer receiving stereotactic ablative radiation therapy (SABR), by intent and type of lung cancer (NSCLC/SCLC).

iii) Proportion of people with lung cancer receiving concurrent chemoradiation, by intent and type of lung cancer (NSCLC/SCLC).

**Measure type:** quality improvement

## Measure items

| **Dataset** | **Data item** | **Description** |
| --- | --- | --- |
| NZCR | NHI | Patient identifier |
| NZCR | Cancer event ID | Cancer registration identifier |
| NZCR | Date of initial diagnosis | Date person first diagnosed with lung cancer |
| NZCR | Diagnosis year | Calendar year of first diagnosis |
| NZCR | Site | Primary organ of origin of the cancer (ICD-10-AM 8th Edition code) |
| NZCR | Morphology code | 4-digit code (ICD-O-3) for microscopic or cellular anatomy of the cancer |
| NZCR | Basis | Basis of diagnosis |
| NZCR | DHB of domicile | DHB code for domicile of patient at diagnosis |
| NZCR | DHB | DHB name based on domicile of patient at diagnosis |
| NZCR | Age at diagnosis | Age of patient at diagnosis in years |
| NZCR | Prioritised ethnicity | Ethnic group derived from patient’s ethnicity |
| NZCR | Sex | Sex of patient |
| NZCR | Deprivation quintile | NZDep2013 index of social deprivation quintile based on patient’s domicile |
| NZCR | Date of death | Date patient died |
| NZCR | TNM\_T | Stage at diagnosis – tumour |
| NZCR | TNM\_N | Stage at diagnosis – node |
| NZCR | TNM\_M | Stage at diagnosis – metastases |
| NZCR | Behaviour code | Neoplastic behaviour of the cancer |
| NZCR | Multiple tumour flags | Person diagnosed with more than one tumour |
| NZCR | Registration status code | Status of registration processing |
| ROC | Start date | Date of treatment start |
| ROC | End date | Date of treatment end |
| ROC | Treatment occurrence | Treatment occurrence |
| ROC | Intent of treatment | Intent of treatment indicator |
| ROC | Fractionation | Planned fractions |
| ROC | Dose | Dosage used |
| ROC | Facility | Facility of service |
| PHARMS | Date of dispensing | Date of dispensing of chemotherapy drugs |
| PHARMS | Chemical ID | Identifier for drug |
| PHARMS | Chemical name | Name of chemotherapy drug |

## Case eligibility criteria (denominator)

| **Diagram reference** | **Assessment** | **Item** | **Codes** |
| --- | --- | --- | --- |
| 1 | First or only diagnosis of malignant neoplasm | Primary site | First diagnosis of lung cancer (trachea C33 or bronchus C34) |
| 2 | Exclude manually censored case | Exclusion | Registration codes not R\_C (registered complete) or R\_R (registered)  No incident cancer (exclude people with multiple tumour flags = yes)  People diagnosed following death certificate only (basis = 0)  People domiciled outside of New Zealand (DHB\_code = 999)  Cancer morphologies of melanoma, sarcoma and other unusual morphologies (codes 8333, 8720, 8772, 8800, 8801, 8803, 8805, 8815, 8890, 9040, 9041, 9133) |
| 3 | Diagnosis date | Date of initial diagnosis | 2015–18 |
| 4 | Male or female | Sex | M or F |
| 5 | Adult patient 18 years and older at diagnosis | Age at diagnosis | 18 years and older |
| 6 | Invasive tumours | Behaviour code | 3 |
| 7 | Cancer type | Morphology code | Non-small cell lung cancer:   * All morphology codes except codes for SCLC (8041, 8042, 8043, 8044 and 8054) and other/unspecified lung cancers (8000, 8010, 8020, 8240, 8244, 8249)   Small cell lung cancer:   * Morphology codes 8041, 8042, 8043, 8044 and 8054 |

## Numerator criteria

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Diagram reference** | **Assessment** | | **Item** | | **Codes** |
| 8i | Proportion of people with lung cancer receiving radiation treatment | | Radiotherapy | | From ROC dataset, include patients with:  a. treatment\_occurrence = “First Treatment”  b. clinical\_code\_icd10\_am8 like (“C33%”, “C34%”)  c. Treatment start date between -30 and 275 days from diagnosis date |
| 8ii | Proportion of people with lung cancer receiving stereotactic ablative radiotherapy | | SABR | | From ROC dataset, include patients with:  a. treatment\_occurrence = “First Treatment”  b. clinical\_code\_icd10\_am8 like (“C33%”, “C34%”)  c. Treatment intent = 1 (curative)  d. Dose between 48 GY and 60 GY  e. Fractionation between 3# and 8#  f. Treatment start date between -30 and 275 days from diagnosis date |
| 8iii | Proportion of people with lung cancer receiving concurrent chemoradiation | Chemoradiation | | From ROC dataset, include patients with:  a. treatment\_occurrence = “First Treatment”  b. clinical\_code\_icd10\_am8 like (“C33%”, “C34%”)  c. Treatment start date between -30 and 275 days from diagnosis date  AND  From PHARMS dataset, include patients with:  d. Drugs with chemical ID 3826, 3825, 2433, 3847, 3811, 3815, 3834, 3842, 3816, 4088, 3966, 3916, 1369, 3813, 2319, 2320  AND  e. PHARMS date of dispensing between ROC start date and ROC end date | |

## Chemotherapy drug codes and names

|  |  |
| --- | --- |
| **Chemical ID** | **Chemical name** |
| 3826 | Cisplatin |
| 3825 | Carboplatin |
| 2433 | Etoposide |
| 3847 | Etoposide phosphate |
| 3811 | Irinotecan hydrochloride |
| 3815 | Paclitaxel |
| 3834 | Docetaxel |
| 3842 | Gemcitabine hydrochloride |
| 3816 | Vinorelbine |
| 4088 | Pemetrexed |
| 3966 | Gefitinib |
| 3916 | Erlotinib hydrochloride |
| 1369 | Cyclophosphamide |
| 3813 | Doxorubicin |
| 2319 | Vinblastine sulphate |
| 2320 | Vincristine sulphate |

